

Lake Bradford Lake

Vegetation Index Results

(8-9-2013)

The Lake Vegetation Index score for Lake Bradford was 60, placing the lake's vegetative community in the healthy category.

The Lake Vegetation Index (LVI) is a multi-metric index that evaluates how closely a lake's plant community resembles one that would be expected in a condition of minimal human disturbance. It is based on a rapid field assessment of aquatic and wetland plants as indicators of various effects of human disturbance over time. Plants respond

to physical disturbances such as introduction of exotic species or lakeshore alterations, and chemical disturbance such as introduction of excess nutrients, particulates, or herbicides from the surrounding land uses.

The LVI method is performed from a boat, and involves dividing a lake into 12 units and identifying plants in 4 of the 12 units. Plants are identified in the selected unit by a visual boat "drive by" and also via a transect approach. The resulting data is used to calculate the LVI and is evaluated according to the scoring system in Table 1. County staff are available to discuss this information as desired.

TABLE 1. Category names, ranges of values for LVI, and example descriptions of biological conditions typically found for that category.

<i>Aquatic life use category</i>	<i>LVI Range</i>	<i>Description</i>
Exceptional	78–100	Nearly every plant present is a species native to Florida, invasive taxa typically not found. About 30% of taxa present are identified as sensitive to disturbance.
Healthy	43–77	About 85% of plant taxa are native to Florida; invasive taxa present. Sensitive taxa have declined to about 15%.
Impaired	0–42	About 70% of plant taxa are native to Florida. Invasive taxa may represent up to 33% of total taxa. Less than 10% of the taxa are sensitive.

Forty-seven plant species were found during the survey. The native species, lesser creeping rush (*Juncus repens*) and needle leaf Ludwigia (*Ludwigia arcuata*) were the most dominant plants in the lake followed by pond cypress (*Taxodium ascendens*), maidencane (*Panicum hemitomon*), and road-grass (*Eleocharis baldwinii*). Other native shoreline vegetation included; red maple (*Acer rubrum*), buttonbush (*Cephalanthus occidentalis*) and dotted smartweed (*Polygonum punctatum*).

Unfortunately, torpedo grass (*Panicum repens*) and Chinese tallow (*Sapium sebiferum*), both listed as Category I Invasive Exotics by the Florida Exotic Pest Control Council, are invasive exotics that are a concern in Lake Bradford. Alligator weed (*Alternanthera philoxeroides*), was the only Category II Invasive Exotic found in the lake.

For a complete list of plants found during the LVI survey, please see Table 2.

TABLE 2. Scientific and common names of the plants identified during the Lake Bradford LVI survey (8-9-13).

Scientific Name	Common Name
<i>Acer rubrum</i>	red maple
<i>Aeschynomene indica</i>	Indian jointvetch
<i>Alternanthera philoxeroides(II)</i>	alligator weed
<i>Baccharis glomeruliflora</i>	silverling
<i>Bidens alba</i>	beggarticks
<i>Bidens mitis</i>	smallfruit beggartick
<i>Boehmeria cylindrica</i>	false nettle
<i>Campsis radicans</i>	trumpet vine
<i>Cephalanthus occidentalis</i>	buttonbush
<i>Cyrilla racemiflora</i>	swamp titi
<i>Dichanthelium aciculare</i>	needle leaf witch grass
<i>Diodia virginiana</i>	Virginia buttonweed
<i>Eleocharis baldwinii</i>	road-grass
<i>Eupatorium</i> sp.	Eupatorium
<i>Gelsemium sempervirens</i>	evening trumpet flower
<i>Hydrocotyle</i> sp.	water pennywort
<i>Juncus repens</i>	lesser creeping rush
<i>Leucothoe racemosa</i>	sweetbells
<i>Liquidamber styraciflua</i>	American sweetgum
<i>Ludwigia arcuata</i>	needleleaf Ludwigia
<i>Ludwigia repens</i>	creeping primrose willow
<i>Ludwigia</i> sp.	primrose willow
<i>Luziola fluitans</i>	southern watergrass
<i>Lycopus rubellus</i>	taperleaf water horehound
<i>Micranthemum umbrosum</i>	baby tears
<i>Mikania scandens</i>	climbing hempvine
<i>Myrica cerifera</i>	wax myrtle
<i>Nymphaea odorata</i>	fragrant waterlily
<i>Nyssa sylvatica</i> var. <i>biflora</i>	swamp tupelo
<i>Oldenlandia boscii</i>	Bosc's mille graines
<i>Panicum hemitomom</i>	maidencane
<i>Panicum repens(I)</i>	torpedo grass
<i>Parthenocissus quinquefolia</i>	Virginia creeper
<i>Pinus taeda</i>	loblolly pine
<i>Polygonum punctatum</i>	dotted smartweed
<i>Pontederia cordata</i>	pickerelweed
<i>Quercus virginiana</i>	southern live oak

<i>Sabal palmetto</i>	cabbage palm
<i>Sagittaria filiformis</i>	threadleaf arrowhead
<i>Salix carolina</i>	coastal plain willow
<i>Salvinia minima</i>	water spangles
<i>Sapium sebiferum(I)</i>	Chinese tallow tree
<i>Smilax bona-nox</i>	saw greenbrier
<i>Taxodium ascendens</i>	pond cypress
<i>Toxicodendron radicans</i>	eastern poison ivy
<i>Vitis rotundifolia</i>	muscadine
<i>Wisteria sinensis</i>	Chinese wisteria

I - Category I Invasive Exotics

II - Category II Invasive Exotics

For additional information about the LVI, please review the Florida Department of Environmental Protection's [LVI Primer document](#).

For additional information about Category I and II invasive exotic plants, please visit the [Florida Exotic Pest Plant Council](#) webpage.

For more detailed information about the above species, please visit the [Atlas of Florida Vascular Plants](#) website.